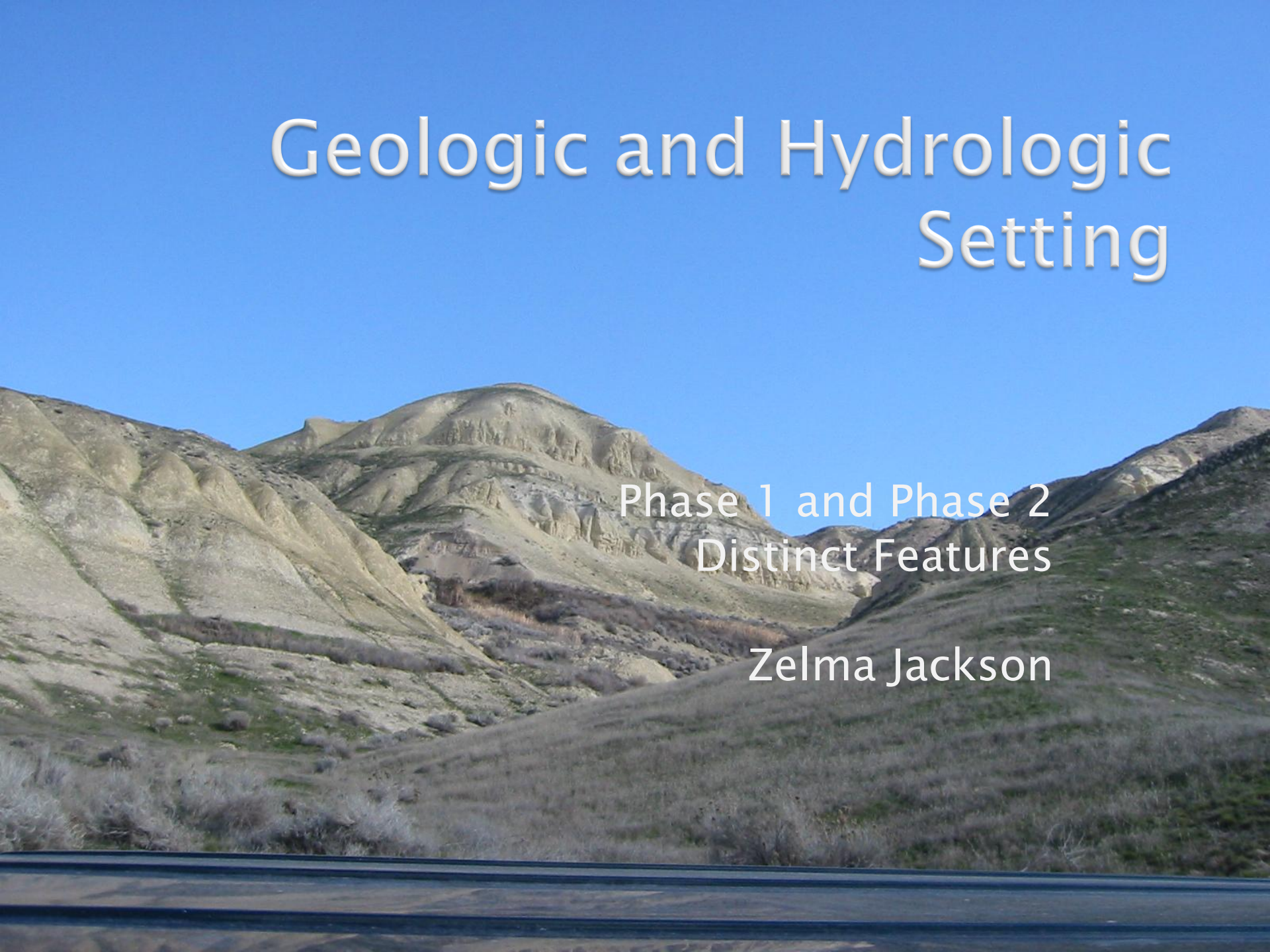
Geologic and Hydrologic Setting



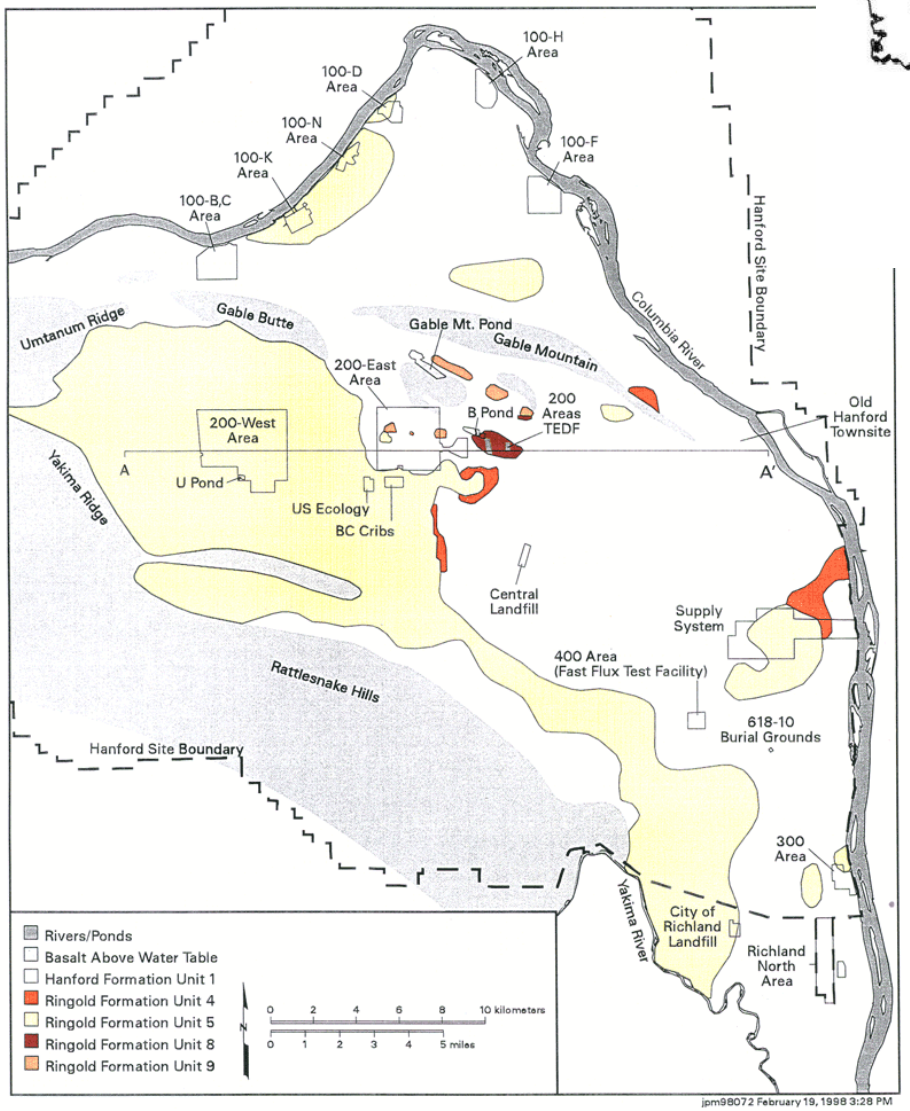
Phase 1 and Phase 2
Distinct Features

Zelma Jackson

The site is bounded by:

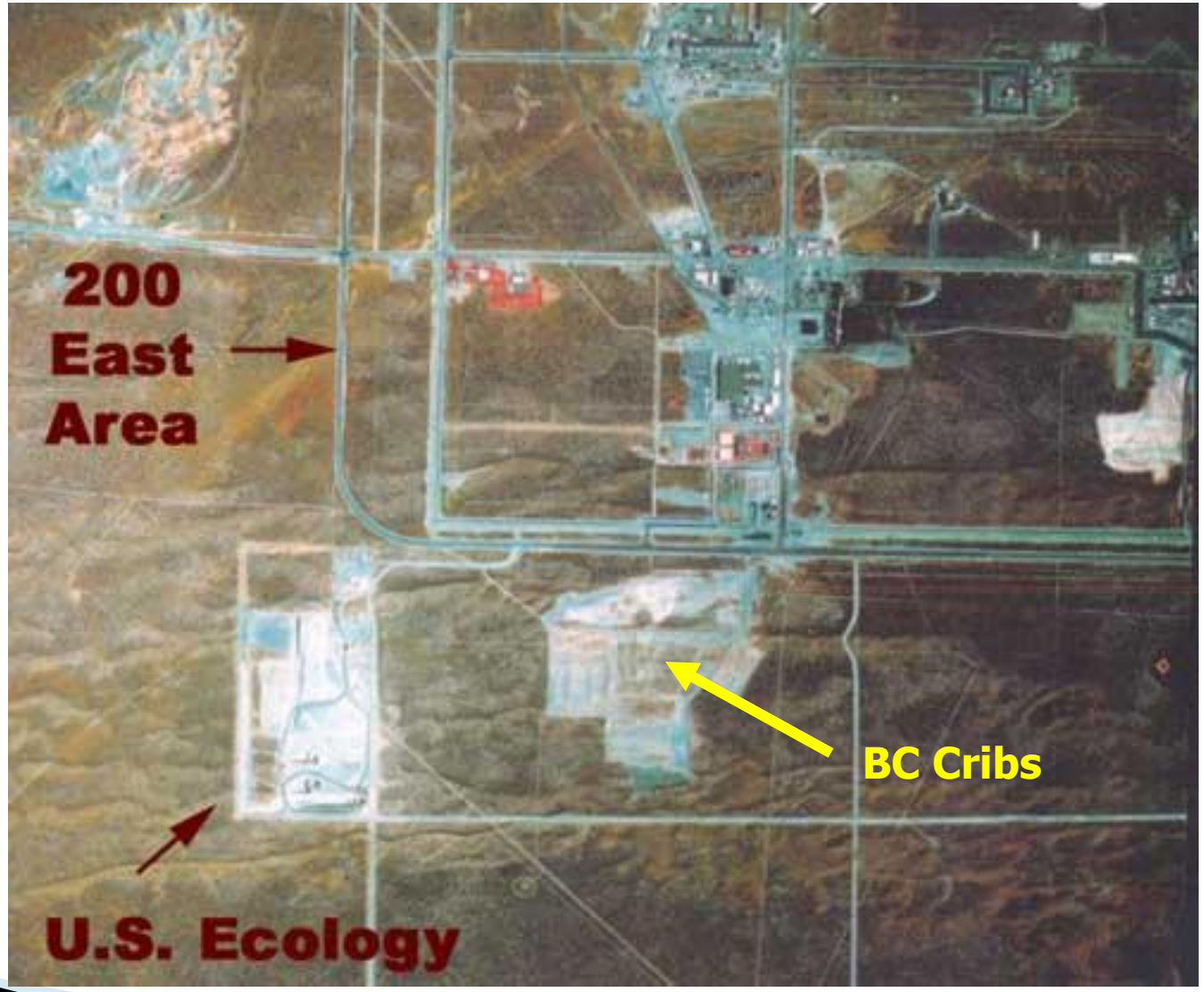
<u>West</u> by Umtanum Ridge And Yakima Ridge

<u>North</u> by Gable Butte and Saddle Mountain



<u>East</u> by Columbia River

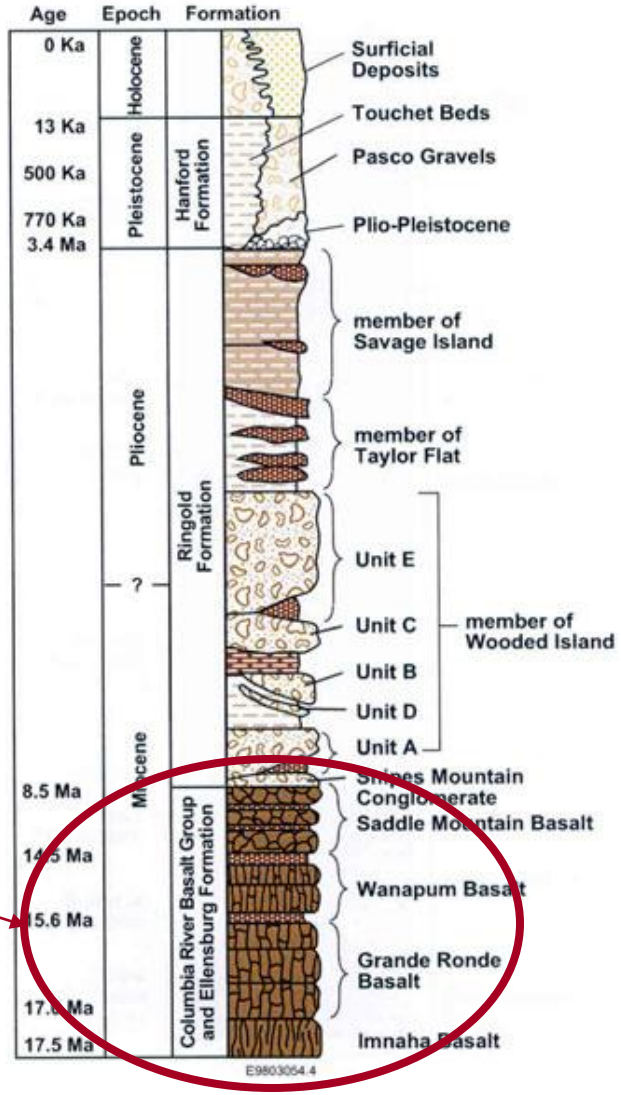
<u>South</u> by Rattlesnake Ridge


200
East
Area
BC Cribs
U.S. Ecology

Geologic Setting:

Late Cenozoic Stratigraphy of the Pasco Basin

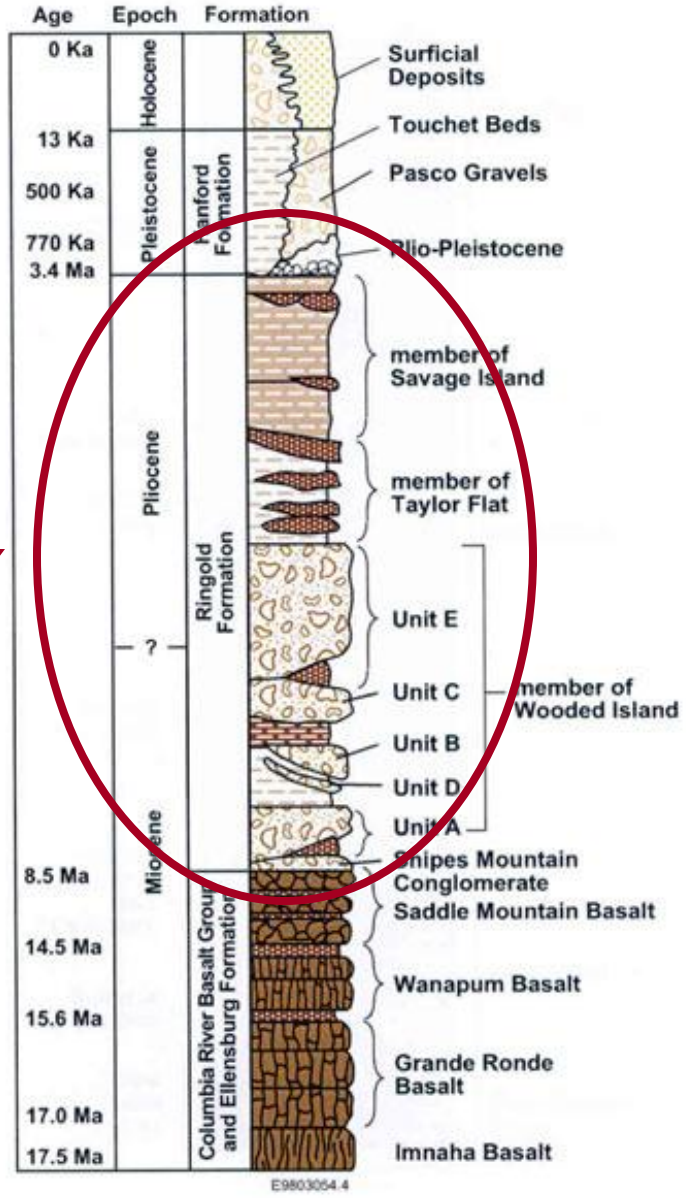
Columbia River Basalt Group



Geologic Setting:

Late Cenozoic Stratigraphy of the Pasco Basin

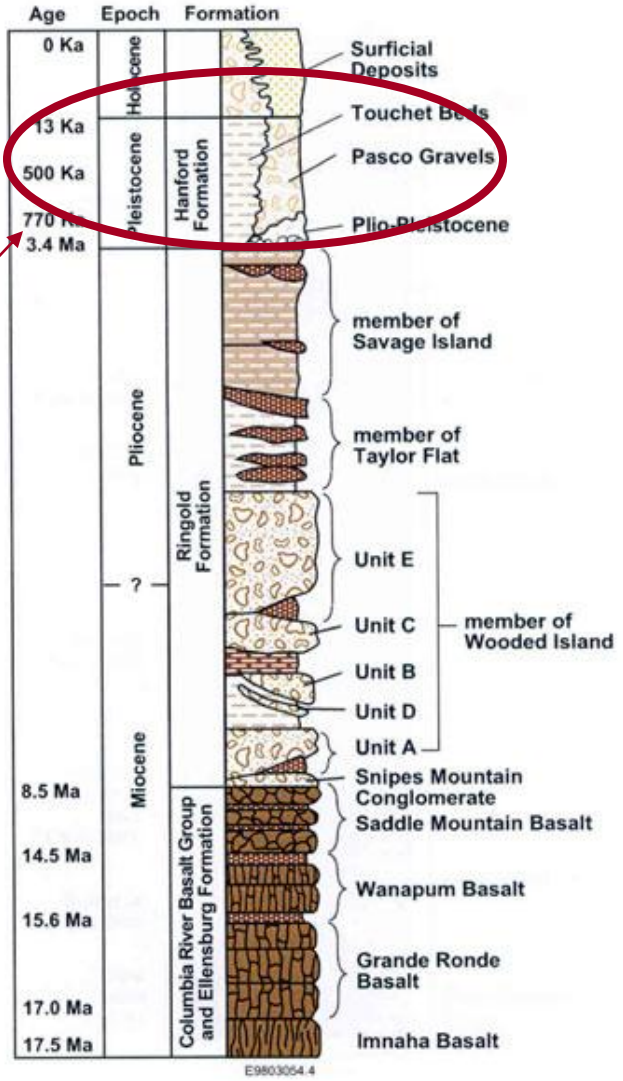
Ringold Formation



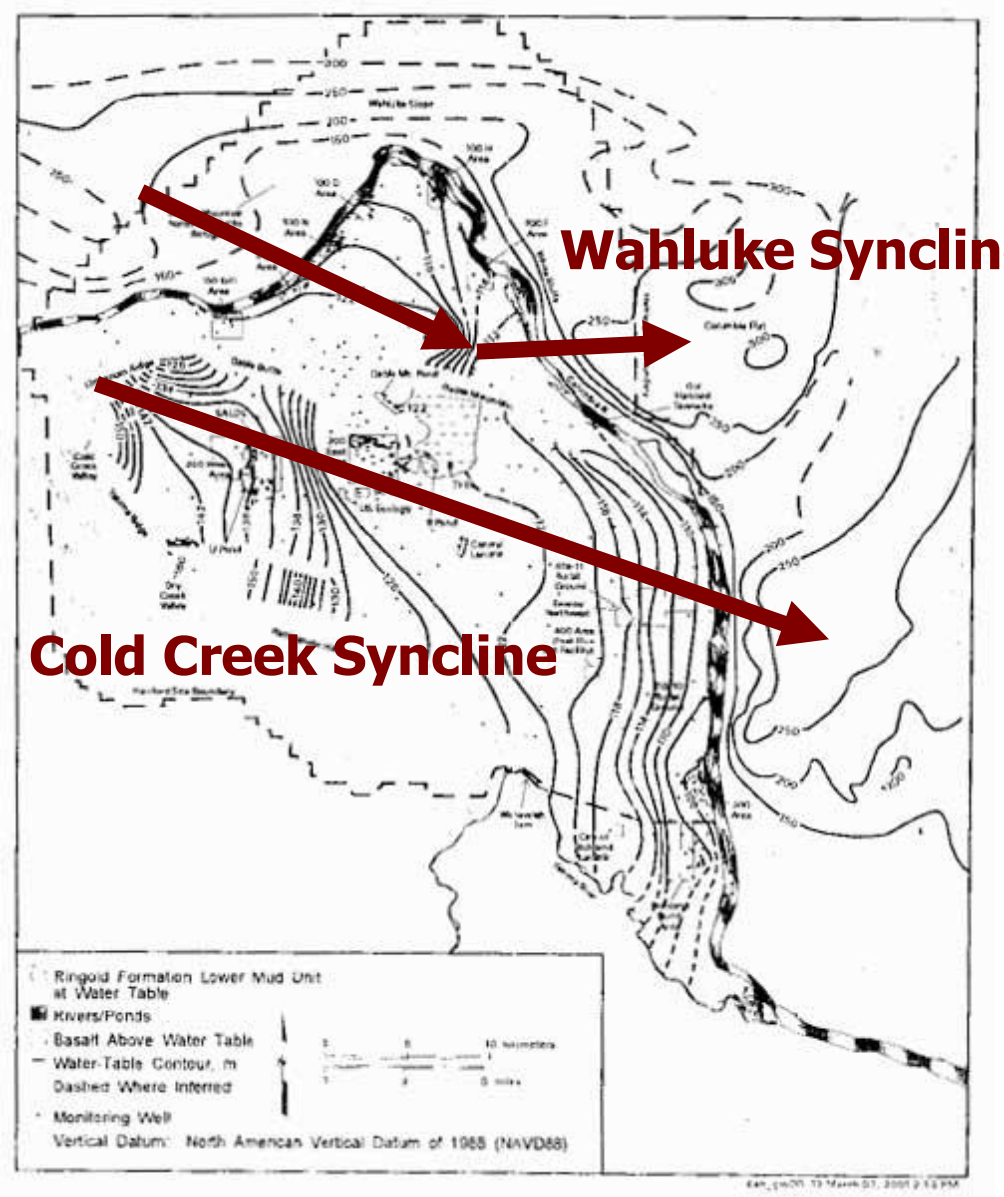
Geologic Setting:

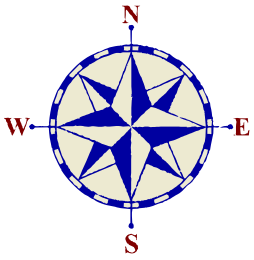
Late Cenozoic Stratigraphy of the Pasco Basin

Plio-Pleisocene Deposit



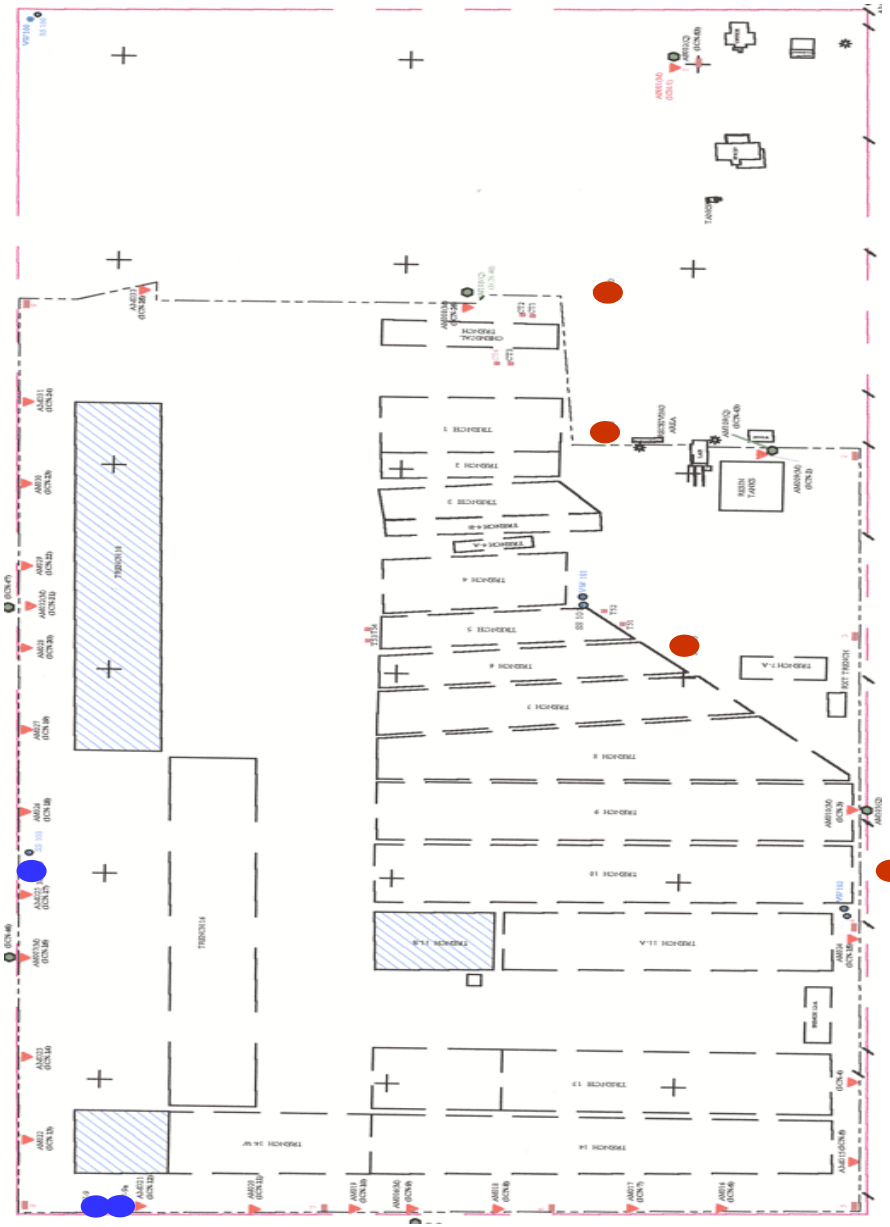
Hydrology Setting





Upgradient

Downgradient



Previous Investigations

- Assess soil and gas beneath trenches for presence of chemical constituents
- Assess nature of release for impact to human health and the environment

Phase 1

- Provide additional analyses
- Quarterly groundwater sampling

Phase 2

Clastic dike near US Ecology

Waste emplacement in 2002

7/17/02

Conclusion

- Clastic dikes may be a preferential pathway for the migration of contaminants.
- Clastic dikes are the result of the Pasco Basin's formation and their distribution pattern is reflected on the surface and in the subsurface.
- The Pasco Basin's stratigraphy, complex hydrogeology, groundwater flow direction and past disposal practices in unlined trenches support migration of contaminants in the vadose zone to groundwater.